

In rejecting claim 1, the Examiner states that *Dvorkin* discloses a receive front-end module for use in a multi-band, multi-mode communication device. The Examiner admits that *Dvorkin* does not disclose at least two signal paths connected to simultaneously receive communication signals from one of the antenna through one of the two feed points, but points to *Ahonen* for disclosing this feature. In particular, the Examiner points to Figure 1, blocks 1A, 1B, 10A and 10B of *Ahonen*.

The receive front-end present invention, as claimed in claim 1, includes the following claim elements:

- (I) at least two feed points adapted to connect separately to at least two electrically separate antennas for receiving communication signals;
- (II) a plurality of signal paths, operatively connected to the feed points for simultaneously receiving communication signals in a plurality of frequency bands, wherein each signal path has a filter for filtering the communication signals in the corresponding frequency band;
- (III) at least one isolation component, disposed in the signal paths, for providing cross-band isolation; and
- (IV) at least two of the signal paths are adapted to simultaneously receive communication signals from one of the antennas through one of the two feed points.

In reject claim 1, the Examiner states that *Dvorkin* also discloses a receive front-end module having at least two feed points 30-33 (figure 1) adapted to connect separately to at least two electrically separate antennas 4, 5 for receiving communication signals.

It is respectfully submitted that, in *Dvorkin*, only two feed points 30 and 31 are qualified as the feed points in the receive front end for receiving communication signals. Furthermore, only one antenna 4 can be used for receiving communication signals. The feed points 32, 33 and the antenna 5 are irrelevant to the receive front-end as claimed in claim 1.

In rejecting claim 1, the Examiner also states that *Ahonen* teaches at least two signal paths are adapted to simultaneously receive communication from one of the antennas through of the two feed points.

It is respectfully submitted that, in *Ahonen*, there is only one antenna 6 that is used for receiving signals.

Thus, both *Dvorkin* and *Ahonen* disclose only one antenna for use in the receive front-end for receiving signals. In *Dvorkin*, the two qualified feed points 30 and 31 are connected to the same antenna 4.

In contrast, in the claimed invention, at least two feed points are connected separately to at least two electrically separate antennas for receiving communication signals. Thus, *Dvorkin* and *Ahonen* fail to disclose or suggest claim element (I).

For the above reasons, claim 1 is distinguishable over the cited *Dvorkin* and *Ahonen* references.

As for claims 2, 3 and 6-10, they are dependent from claim 1 and recite features not recited in claim 1. For reasons regarding claim 1 above, it is respectfully submitted that, claims 2, 3 and 6-10 are also distinguishable over the cited *Dvorkin* and *Ahonen* references.

Claim 33 claims a method for enhancing reception of communication signals in a communication device, wherein two signal paths connected to the first feed points are adapted to receive communication signals in different frequency bands. Claim 34 claims a communication device, wherein the communication signals received in two different signal paths connected to the first feed points are transmitted in different frequency bands.

*Dvorkin* and *Ahonen* fail to disclose this limitation. Thus, claims 33 and 34 are distinguishable over the cited *Dvorkin* and *Ahonen* references.

As for claims 35 and 36, they are dependent from claim 34 and recite features not recited in claim 34. For reasons regarding claim 34 above, claims 35 and 36 are also distinguishable over the cited *Dvorkin* and *Ahonen* references.

At section 3, claims 13-15 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dvorkin* in view of *Ahonen* and further in view of *Gitlin et al.* (U.S. Patent No. 6,188,718, hereafter referred to as *Gitlin*). The Examiner cited *Gitlin* for disclosing a third antenna.

It is respectfully submitted that *Gitlin* discloses a mixed-rate wireless communication which uses code division multiple access (CDMA) technique in a digital wireless system. The CDMA technique is not compatible with the time division multiple access (TDMA) system as used in *Ahonen*. The CDMA technique is also not useful in the dual-band, dual-feed point, receive antenna in *Dvorkin*. It would not be any incentive for a person in the art to combine the communication systems using different multiple access techniques.

Furthermore, claims 13-15 are dependent from claim 1 and recite features not recited in claim 1. For reasons regarding claim 1 above, claims 13-15 are also distinguishable over the cited *Dvorkin*, *Ahonen* and *Gitlin* references.

At section 4, claims 4, 5, 11, 12 and 16-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dvorkin*, *Ahonen*, and *Gitlin*, in view of *Ella* (U.S. Patent Application Publication No. 2003/0128081). The Examiner cited *Ella* for disclosing one or more baluns.

It is respectfully submitted that claims 4, 5, 11, 12 and 16-32 are dependent from claim 1 and recite features not recited in claim 1. For reasons regarding claim 1 above, claims 4, 5, 11, 12 and 16-32 are also distinguishable over the cited *Dvorkin*, *Ahonen*, *Gitlin* and *Ella* references.

## CONCLUSION

Claims 1-36 are distinguishable over the cited references. Early allowance of claims 1-36 is earnestly solicited.

Respectfully submitted,



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